



Use Guide for Application with **HYDRO-ORGANICS**

The following instructions are only examples of the various application rates that have been suggested by Earth Juice enthusiasts and are intended only as tips that may be used as guidelines.

HYDRO-ORGANICS

SYSTEM: Trickle

MEDIUM: Horticultural clay rocks 8-16 mm.

OPTION: 80% Horticultural clay rocks 8-16 mm + 20% Earth Juice GrowCoir.

CHARGING SYSTEM: Prior to planting, fill reservoir with clean water and Catalyst at 2 Tablespoons per gallon. Run continuously for 24 hours. Empty the reservoir and add, at one half strength, the suggested nutrient dosage. Run for 1 day. Empty 80% of reservoir, add fresh full strength solution and run. After 24 hours check pH . We suggest to run pH lower than the optimum, 5.2-5.8, until you get a feel for it. If the initial pH is lower, let it run another 24 hours before attempting to adjust. Now it is ready to plant. The initial pre-charge introduces an active "Bio-Zone" which will reduce organic odors.

ADDING SOLUTION: Add solution whenever the level drops to approximately 1 gallon. If allowed to drop too low, there may be an increase in the incidence of fouling the drip-ring. When topping off, use approximately 1/2-3/4 strength nutrient solution.

CHANGING RESERVOIR SOLUTION: Change every 4-8 weeks. At changes, fill with clean water only and run for a few hours. Drain and fill with fresh nutrient solution.

GENERAL USE RATES PER GALLON OF WATER

Rates may be adjusted according to individual needs.

EARTH JUICE	VEGETATIVE			FLOWERING & FRUITING		
	Mild	Med	Strong	Mild	Med	Strong
Grow	4 tsp	2 Tbsp	3 Tbsp	1 tsp	4 tsp	2 Tbsp
Bloom	1 tsp	1 tsp	1 tsp	1 tsp	2 tsp	1 Tbsp
Catalyst	1 tsp	1 tsp	1 tsp	1.5 tsp	2 tsp	2 tsp
Meta-K	1/2 tsp	3/4 tsp	1 1/4 tsp	3/4 tsp	1 1/2 tsp	2 tsp
MicroBlast	1 tsp	1.5 tsp	2 tsp	1 tsp	2 tsp	2 tsp
Assist 1 - 2 Tbsp (May experience initial foaming)						
Optional: Add 2 tsp Essential						
For adjusting pH, use Natural Up and Natural Down						

ANOTHER EXAMPLE OF A PPM CHART FOR TOMATOES

Rates at ml per 3.785 liters / 1 gallon of water

EARLY/VEGETATIVE STAGE						
EARTH JUICE	RATE	(N) PPM	(P) PPM	(K) PPM	(Ca) PPM	(Mg) PPM
Grow	20 ml					
Bloom	8 ml					
Meta - K	9 ml					
MicroBlast	10 ml					
Catalyst	5 ml					
Total ppms		106	52	259	97	26
BLOSSOMING/FRUIT SET						
Grow	25 ml					
Bloom	10 ml					
Meta-K	12 ml					
MicroBlast	10 ml					
Catalyst	7 ml					
Total ppms		132	64	341	121	26
MATURE STAGE/RIPENING						
Grow	35 ml					
Bloom	15 ml					
Meta-K	13 ml					
MicroBlast	12 ml					
Catalyst	10 ml					
Total ppms		185	93	396	178	32
Include Assist at approved 1 ml per 5 gallons. Watch for initial foaming.						

NON-RECOVERY/INJECTION SYSTEM

SYSTEM: 5 gallon containers with a soilless mix of 40% Earth Juice GrowCoir, 50% horticultural clay rocks 4-8 mm, 10% Perlite. Add Rainbow Mix Grow. Use at the Rainbow Mix recommended rates or approximately 2-4 oz per cubic foot of medium. Reapply, by working into the top layer of the medium, Rainbow Mix Grow every 2-3 months.

DELIVERY SYSTEM: Main supply line, 1/2 inch hard poly in a closed loop configuration. Feeding hose, 1/4 inch minimum diameter poly. Drill holes in supply line, attach the feeding hose with a needle nose pliers by squeezing the hose, inserting into the drill holes and releasing. *Do Not Attach Drippers.*

FREQUENCY AND DURATION:Varies due environment and age of plant. Irrigate, during light hours, 1-3 times a day for 5-15 minute durations.

Inject at 1:50 -- Formulas may be mixed together to make a combination gallon(s) of stock material.		
Earth Juice	fl oz/gal	
Grow	50.00/gal	(N)150ppm (P)33ppm (K)63ppm (Ca)62ppm
Bloom	23.50/gal	(P)46ppm (K)30ppm (Ca)88ppm
Meta - K	10.50/gal	(K)157ppm (S)52ppm
Catalyst	20.00/gal	
Assist	5.00/gal	(May experience initial foaming)
MicroBlast	9.00/gal	(Adjust to plant micronutrient requirements)

NOTES FROM A COMMERCIAL HYDRO-ORGANIC LETTUCE PRODUCER

LETTUCE VARIETY: Tango and miscellaneous.

SYSTEM: Nutrient Flow Technique Gully.

INSTRUCTIONS: Propagate seeds in Vacroc 1.5" cubes or a 50/50 mixture of Earth Juice GrowCoir and Perlite in the Nutrient Flow Technique mesh bottom cups. Start separately out of the system. When roots emerge, place into system. Supplement with greenhouse lighting to extend the day's light hours to 16.

FEEDING SCHEDULE: Continuous flow or a duration schedule of feeding every 40 minutes for 20-minute durations.

MAINTENANCE: Change solution once a week. Empty old solution and fill with clean water only. Run through the system for a minimum of 2 hours or up to 1 full day. Empty and fill with fresh solution.

Rates per 1 gallon of water		
EARTH JUICE	STARTING FORMULA	FINISHING FORMULA
Grow	20 ml	28 ml
Bloom	10 ml	13 ml
Meta-K	3 ml	4 ml
Microblast	7.5 ml	10 ml
Catalyst	5 ml	10 ml
Assist	3 ml	3 ml
APPROXIMATE PPM TOTALS: START-(N)105 (P)58 (K)132 (Ca)110 (Mg)20 FINISH -(N)149 (P)78 (K)178 (Ca)148 (Mg)26		

Quick Metric Conversion

5 ml=1 tsp 3 tsp=1 Tbsp=15 ml 2 Tbsp=1 floz=30ml 128 floz=1 gal=3.785